

# THE MOTHER-OF-P

By A. P. J. HOLNESS, Chief Fisheries Officer, Gilbert Isl

At the present time, a number of Pacific countries are planning to participate in the skipjack tuna fishery, which is fast becoming one of the major yielding fish crops. For some time, fishermen in the Pacific have been finding it more and more difficult to obtain bait to catch skipjack tuna (*Katsuwonus pelamis*). Bringing bait fish, that is, of course, live bait, long distances is a difficult and costly operation. Some Pacific islands have enough live bait stock to maintain a sizeable catching fleet, but others, less fortunate, have little or no bait.

In the Gilbert Islands, a very well organized bait fish aquaculture project is at an advanced stage, with milk fish (*Chanos chanos*) being caught and grown to acceptable bait fish sizes as part of an overall tuna bait supply scheme. Surveys in lagoons will commence shortly to assess possible stocks of natural bait, which will be used to supplement any short-falls of farmed bait fish.

Is there any other field to explore to supplement or replace the use of live-bait? There is: the mother-of-pearl (*Pinctada margaritifera*) fishing lure.

There are minor variations on the mother-of-pearl lure in the central Pacific area, but they are so small that they do not warrant a separate lure 'claim'. The Tahitians developed this lure and still use it very effectively. In the Marshall Islands the lure is also used, but to what extent the writer is unable to state.

While I was in Fiji with the Fisheries Division in 1972-1975, I made every effort to obtain a mother-of-pearl lure. It was only towards the end of the tour of duty that I managed to find one. It was not a good sample, but showed clearly how it was made. I am now in a unique position to fulfil my long-established desire to investigate and bring to light an old and tried traditional fishing lure, which appears to have been in use for more than 50 to 60 years. As the new head of the Fisheries Division in the Gilbert Islands, I find myself living among the finest mother-of-pearl lure artists in the Pacific. Not only are the Gilbertese experts at making the lure, they also excel in its use.

The fishermen use the lure purely as a skipjack lure among tuna and fill their boat in a few

minutes. A bamboo pole approximately six centimetres in diameter at the holding end, tapering to about one and a half centimetres, is used. The length varies slightly according to the height of the fisherman and length of the boat. It is usually about eight feet (2.4 m)-plus.

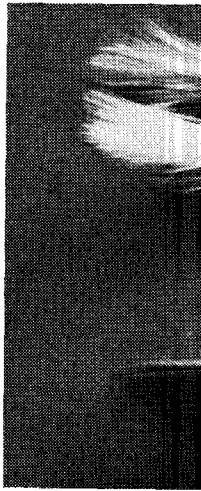
The first step in making the lure is to obtain the pearl shell, of about 14 centimetres diameter. The shell should be scraped so as to loosen any flakes or rough fragments. It is then placed in a padded vice, so as to avoid direct metal pressure on the shell. It must be held firmly.

Very straight marker lines are scratched onto the shell, starting from the top or gill end and leading to the ligament end. The number of lures which can be cut depends on the width of the ligament or joining muscle section. The outer curve on each side of the shell is discarded, leaving only that section, which could be about eight centimetres wide.

Each lure width is approximately 1½ cm. Usually four to five lures can be cut from one good pearl shell. Once the basic lure has been cut, the sections are then carefully scraped and polished, using first a fine wire brush, then sandpaper. Some sectional lures polish up better than others. A good lure usually has an amber and mauve streak in it. The material used for the barbless hooks in the Gilberts nowadays is usually aluminium taken from aircraft that crashed during the war. Traditionally the barbless hook was made from a hard piece of turtle shell or carved wood which was toughened by rubbing the wood with oil, then browning it in hot coals.

As shown in the photographs, two holes are drilled in the hook to hold the binding and a small feather or skirt tip added for colour and attraction. The line which holds the lure in the catching position is also the leader or trace. This system can be improved on now by the use of a hundred-pound, nylon-covered, steel trace. From the end of the lure trace or leader, which is usually about 75 centimetres long, a neat loop or eye is formed which in turn is attached to the skipjack pole line. This line, including the length of the leader with the lure, is usually just short of the length of the pole.

The actual fishing is a technique which one has



A Japanese feather mother-of-pearl lure

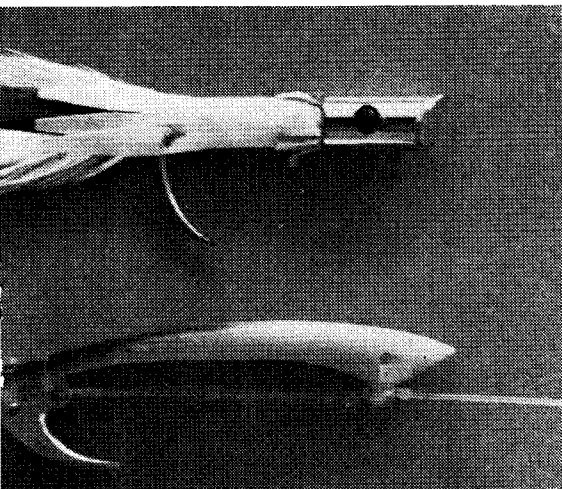


Typical fast runabout



# PEARL FISHING LURE

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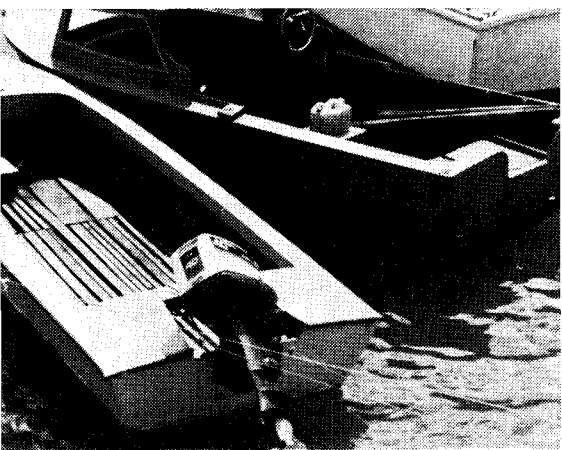


*ig, top, and a Gilbertese  
bottom.*



*A fisherman shows off his poles.*

*t for skipjack fishing.*



to experience and master. It is not difficult, but does require a precision of movement starting with 'whipping' of the water as the school of fish is entered; some of the lures are allowed to sink a short distance before the fishermen begin to 'jig' up and down. The mother-of-pearl lure is so attractive that the skipjack get really excited on being presented with this lure. If any other lure is presented, the different action of the skipjack is noticeable. Once the skipjack get excited or into a frenzy, a Japanese tuna feather jig can be dropped in amongst the fish and will work effectively, in the same way as live bait.

Using the main private fishing vessel in Tarawa, which is an imported 36-footer with five crew members, as an example of catches taken with mother-of-pearl lures, I found that from April to December 1975, a total of 49,000 pounds of skipjack were caught. The vessel only fished for 205 days. Most of the catches were caught in two to three hours' fishing each day. All the catches were with mother-of-pearl lures, and the chumming was done with the pearl lure. If the fish were worked up into a real frenzy, then the fishermen would use a Japanese jig as these were cheaper to lose than the pearl lure (a Japanese jig is easier to come by than a pearl lure which is hand-made and takes a considerable time to produce).

Two other local fishermen, considered more progressive than the five or six remaining fishermen, landed approximately 400 pounds of skipjack a day on average. The difference in weight per boat depends on the size of the boat that each man uses, and the number of 'polers' per boat. The type of runabout used by the local fishermen when fishing for skipjack may be seen in the photograph. All these fishermen use mother-of-pearl lures.

The writer is about to commence a comprehensive skipjack bait survey. This survey will establish both natural bait resources and also the take-off potential from the newly established bait fish farm project. But in addition to this, comparative tests will be made, and here the mother-of-pearl lure will be tested under more severe conditions, to see how far it can be considered commercially important. So far the indications are that a number of fishermen find the lure a most important factor in obtaining good returns of skipjack. □